

HUMAN GENETICS LAB

Purpose: *To study some simple, dominant/recessive, single factor ('Mendelian'), inherited human traits.*

Procedure/Data: As a class, fill in the following table of traits:

Trait	Your Phenotype	Your Probable Genotype	Class # Dominant	Class # Recessive
Widow's Peak Yes W No w				
Earlobe Nonattached (E) Attached (e)				
Eye Colour Dark B Light b				
Tongue Rolling Yes R No r				
Handedness Right H Left h				
Interlocking fingers Left over right F Right over left f				
Bent little finger Bent L Straight l				
Hitchhiker's thumb No S Yes s				
Sodium benzoate Taste T No taste t				
Cleft chin Yes C No c				
Mid-digital hair Yes M No m				
Short big toe Yes Z No z				

Conclusion:

1. a. There are 2 phenotypes possible for each trait examined. Explain the reasoning you used to arrive at your probable genotype.

- b. Why were you unable to predict all your genotypes?

2. Are the dominant traits necessarily the most common in the class?

3. If a bent little finger became advantageous (for what ever reason), what is likely to happen to the frequency of the gene? Explain.

4. Make a pedigree chart for your immediate family. Choose 2 traits and check your family for them. On the chart, fill in the probable genotypes. Use a ? for any unknowns.

References: